Investigation and Countermeasures on the Status quo of TCM Nursing Ability of Nurses in Guangyuan Hospitals

Juan Zheng, Ming Jin, Li Zhang, Xiaoling Hu, Huijun Gou
Guangyuan Hospital of Traditional Chinese Medicine, Guangyuan 628000, Sichuan, China

Abstract: This study aims to investigate the current status of TCM nursing capabilities among nurses in hospitals in Guangyuan, analyze the influencing factors, and propose development strategies. A descriptive survey was conducted using a random sampling method to select 1,518 clinical nurses engaged in TCM nursing from four public hospitals in Guangyuan. Data were collected using general information questionnaires, TCM nursing capability questionnaires, and TCM nursing training needs questionnaires. The study found that the TCM nursing team in Guangyuan is characterized by a young workforce and high educational levels, but a high proportion of non-regular staff. There is an imbalance in TCM nursing capabilities, with strong technical skills but weak theoretical foundations, and more routine techniques than innovative ones. Nurses have a strong demand for training, but there is room for improvement in the quantity and relevance of existing training programs. Based on these findings, the study proposes strategies to optimize team structure, enhance capabilities through tiered approaches, meet training needs precisely, and promote the development of the discipline.
Keywords: Guangyuan area; Hospital nurses; TCM nursing ability; Current situation survey; Countermeasures

1. Introduction

Traditional Chinese medicine (TCM) nursing is a vital component of TCM, characterized by its unique theoretical framework and extensive practical experience. It plays a crucial role in disease prevention, treatment, rehabilitation, and health maintenance. As the TCM industry grows and public health needs increase, the importance of TCM nursing has become increasingly evident, and the demands on nurses' TCM nursing skills have risen. Guangyuan, an important city in Sichuan Province, boasts rich TCM resources and a long-standing cultural heritage. The TCM nursing skills of hospital nurses in this region are directly linked to the quality and standards of local TCM nursing services. However, research on the TCM nursing skills of hospital nurses in Guangyuan is relatively limited, and there is insufficient understanding of their current status, influencing factors, and development strategies [1]. Therefore, this study aims to investigate the current state of TCM nursing skills among hospital nurses in Guangyuan, analyze the influencing factors,

and propose corresponding development strategies to enhance the level of TCM nursing in the region.

2. Object and method

2.1. Research object

Using a random sampling method, 1,518 clinical nurses engaged in traditional Chinese medicine (TCM) nursing at over 20 public hospitals in Guangyuan, including both general and TCM hospitals, were selected as research subjects. Inclusion criteria: nurses who have been working in TCM nursing for at least one year and have voluntarily agreed to participate in this study. Exclusion criteria: nurses who are on training, interns, or not engaged in TCM nursing.

2.2. Research tools

General information questionnaire: self-designed, including demographic data such as gender, age, length of service, title, type of establishment, and educational background of nurses.

The Chinese Medicine Nursing Competence Questionnaire: Based on relevant literature and practical experience in Chinese medicine nursing, this questionnaire is designed to assess three dimensions: basic knowledge of Chinese medicine, proficiency in common Chinese medicine nursing techniques, and advanced clinical practice in Chinese medicine nursing. It consists of 20 items. The questionnaire uses a Likert 5-point scale, where scores from 'strongly disagree' to 'strongly agree' are rated as 1 to 5 points, respectively. Higher scores indicate stronger Chinese medicine nursing competence. The Cronbach's α coefficient of the questionnaire is 0.85, indicating good reliability [2].

The Chinese Medicine Nursing Training Needs Questionnaire includes questions on training willingness, management emphasis, and preferences for training methods. Training willingness is rated on a 5-point scale: 'very unwilling,' 'unwilling,' 'average,' 'willing,' and 'very willing.' Management emphasis is rated on a 5-point scale: 'very unimportant,' 'not important,' 'average,' 'important,' and 'very important.' Preferences for training methods are multiple-choice questions, listing common training methods for selection [3].

2.3. Data collection methods

After obtaining the consent of relevant departments of the hospital, the investigator, who had been uniformly trained, distributed questionnaires to the subjects, filled them out anonymously, and collected them on the spot. A total of 1600 questionnaires were distributed, and 1518 valid questionnaires were collected, with an effective recovery rate of 94.88%.

2.4. Data analysis methods

SPSS 22.0 statistical software was used for data analysis. The mean value ± standard deviation (SD) was used for measurement data, and the frequency and percentage (%) were used for count data.

3. Results

3.1. Basic characteristics of the research object

Among the 1,518 nurses surveyed, 95.9% are female and only 4.1% are male. The majority (82.1%) are aged between

20 and 40, while 17.9% are over 40 years old. Nurses with 0–10 years of service account for 53.1%, those with 11–20 years of service account for 32.5%, and those with over 20 years of service account for 14.4%.52.4% hold primary titles, 35.2% hold intermediate titles, and 12.4% hold senior titles. 75.1% are non-regular staff, and 24.9% are regular staff. 72.5% have a bachelor's degree or higher, 25.3% have an associate degree, and 2.2% have a secondary vocational education or lower. For more details, see **Table 1**.

Table 1. Basic characteristics of the subjects ($n = 1518$)

Project	Classify	Number of people	Percentage (%)
Sex	Female	1457	95.9
	Male	61	4.1
Age	20–30 years old	789	51.9
	31–40 years old	466	30.2
	41–50 years old	201	13.2
	Over 50	62	4.1
Length of service	0–10 years	806	53.1
	11–20 years	493	32.5
	More than 20 years	219	14.4
Professional ranks and titles	Elementary	795	52.4
	Middle rank	534	35.2
	Senior	189	12.4
Type of preparation	Be on regular payroll	378	24.9
	Not on the payroll	1140	75.1
Record of formal schooling	Secondary vocational school and below	33	2.2
	Junior college	384	25.3
	Bachelor degree or above	1101	72.5

3.2. Development of TCM nursing technology

39.9% of the nurses can perform only 1–2 traditional Chinese medicine techniques, while 577 (38.0%) can perform more than 5. The most frequently performed techniques are moxibustion (66.7%), acupoint patching (67.1%), and auricular point pressing (63.6%). In contrast, the least frequently performed techniques are meridian massage (15.5%), paraffin therapy (13.6%), and traditional Chinese medicine iontophoresis (12.7%). See **Table 2** for more details.

Table 2. Development of TCM nursing techniques ($n = 1518$)

Traditional Chinese medicine nursing techniques	Number of participants	Launch rate (%)
Moxa-moxibustion	1012	66.7
Acupoint patching	1019	67.1
Ear pressure	966	63.6
Chinese medicine fumigation	589	38.8
cup	721	47.5
A popular treatment for sunstroke by scraping the patient's neck	452	29.8
Acupoint massage	236	15.5
Wax therapy	206	13.6
Chinese medicine ion introduction	193	12.7

3.3. The current situation of TCM nursing ability

The overall average score for TCM nursing skills is 3.15 ± 0.93, indicating a moderately high level. Among the

dimensions, the highest score is for the ability to use common TCM nursing techniques (3.38 ± 0.98), followed by TCM basic knowledge (3.04 ± 0.94) and advanced clinical practice in TCM nursing (3.04 ± 1.02). However, scores for 'interpretation of ancient TCM texts' (2.72 ± 1.08) and 'basic knowledge of prescriptions and medicines' (2.81 ± 1.06) are relatively low, reflecting a weaker foundation in TCM theory and the application of ancient texts. For more details, see **Table 3**.

Table 3. Scores of each dimension and sub-item of TCM nursing ability ($n = 1518$, mean $\pm$ SD)

Dimension	Project	Score
Basic knowledge of Traditional Chinese medicine	Basic theory of traditional Chinese medicine	3.12 ± 0.95
	Knowledge of Chinese medicine diagnosis	3.08 ± 0.96
	Basic knowledge of Chinese medicine	2.81 ± 1.06
	Interpretation of ancient Chinese medicine	2.72 ± 1.08
Ability to use traditional Chinese medicine nursing techniques	Moxibustion operation	3.56 ± 0.92
	Acupoint patch operation	3.52 ± 0.93
	Ear acupressure operation	3.48 ± 0.94
	Chinese medicine fumigation operation	3.21 ± 0.97
	Cupping procedure	3.35 ± 0.95
	Gua sha procedure	3.10 ± 0.98
	Acupoint massage operation	2.90 ± 1.02
	Wax therapy procedure	2.85 ± 1.03
	Chinese medicine ion introduction operation	2.78 ± 1.05
Clinical practice of advanced Chinese medicine nursing	Evidence-based nursing competencies	3.02 ± 1.03
	Specialist critical care ability	3.05 ± 1.01
	Ability to guide health care in traditional Chinese medicine	3.10 ± 0.99
	Chinese medicine nursing research ability	2.95 ± 1.04

3.4. Training needs of TCM nursing

(1) Training intention: 90.3% of nurses are willing or very willing to participate in training, only 4.1% have a negative attitude and 5.6% have a general attitude.
(2) Management attention: 82.3% of nurses think that the hospital management attaches importance to/very attaches importance to TCM nursing training, but there is a significant differentiation in the satisfaction of the number of training, 56.9% think it is "just enough," 29.0% think it is "not enough/very not enough," and 14.1% think it is "enough."

In theoretical training, 69.8% prefer 'case analysis,' and 67.4% opt for 'PBL scenario teaching.' In practical training, 87.1% favor 'on-site demonstrations,' 75.6% prefer 'micro-lessons or video demonstrations,' 32.5% like 'workshops,' and 28.9% choose 'mentor-led instruction.'

4. Discussion

4.1. Analysis of basic characteristics of research objects

The survey reveals that the majority of TCM nursing staff in Guangyuan hospitals are female, which aligns with the

higher proportion of women in the nursing industry. In terms of age and work experience, nurses aged 20–40 with 0–10 years of service make up a significant portion, indicating a noticeable trend towards younger nursing staff in the region. 72.5% of the nurses have a bachelor's degree or higher, reflecting the improvement in nursing education in recent years. However, 75.1% of the staff are non-regular employees, which may pose potential risks to job stability. Non-regular nurses may face differences in salary and career development opportunities compared to regular nurses, affecting their work enthusiasm and team stability, which in turn can impact the quality of TCM nursing services [4].

4.2. Analysis of the development of TCM nursing technology

The adoption rate of techniques such as moxibustion, acupoint patching, and auricular point pressing is relatively high, possibly due to their simplicity, broad applicability, and widespread clinical use, which makes them easy for nurses to master. In contrast, the adoption rate of techniques like meridian massage, paraffin therapy, and Chinese herbal iontophoresis is lower, possibly because these techniques require higher operational skills and specialized training and equipment support [5]. Additionally, hospitals may not place enough emphasis on promoting and applying these techniques, leading to a lack of practical opportunities for nurses. This phenomenon of 'more conventional techniques and fewer innovative ones' highlights the uneven application of TCM nursing techniques, necessitating enhanced training and promotion of weaker techniques [6].

4.3. Analysis of the current situation of TCM nursing ability

The overall score for TCM nursing skills is above average, indicating that nurses in the region have a certain level of TCM nursing competence. The scores for commonly used TCM nursing techniques are relatively high, suggesting that nurses have a solid foundation in practical operations. However, the scores for basic TCM knowledge and advanced clinical practice in TCM nursing are relatively low, particularly in 'interpretation of ancient TCM texts' and 'basic knowledge of formulas and medicines,' reflecting a weak theoretical foundation in TCM among nurses. This may be due to insufficient TCM course settings in nursing education and inadequate systematic on-the-job training. Advanced clinical practice skills in TCM nursing, such as evidence-based nursing and specialized differential diagnosis and treatment, need improvement, which also hinders the deeper application and development of TCM nursing in clinical settings [7].

4.4. Analysis of training needs for TCM nursing

Nurses have a strong desire to undergo training, indicating a high level of enthusiasm for enhancing their TCM nursing skills. While most nurses believe that hospital management places significant emphasis on TCM nursing training, there is a mixed response to the quantity of training. Some nurses feel that the training is insufficient, suggesting that hospitals need to increase their investment in training resources [8]. Regarding training methods, nurses prefer case analysis, PBL scenario teaching, on-site demonstrations, micro-lessons, or video demonstrations. These methods emphasize practicality and interaction, aligning well with the learning characteristics of nurses. Therefore, when designing training programs, it is essential to consider the needs of nurses and adopt a variety of training methods to enhance the effectiveness of the training [9,10].

5. Conclusion

The nursing team in the Guangyuan area hospitals is characterized by a young and highly educated workforce, but a high proportion of non-regular staff, which poses potential risks to job stability. The team's skills are uneven, with strong technical skills but weak theoretical foundations, and more conventional techniques than innovative ones. There is a need to enhance advanced clinical practice capabilities. Nurses have a strong demand for training, but current training programs could be improved in terms of quantity and relevance, with methods that balance theoretical depth and practical application. In the future, hospitals in the Guangyuan area should strengthen the development and management of the TCM nursing team, optimize the team structure to enhance nurses' job stability and sense of belonging. Additionally, tiered training should be implemented for nurses at different levels, focusing on strengthening their understanding of TCM basic theories and improving their advanced clinical practice skills, thereby promoting the comprehensive development and innovation of TCM nursing techniques. Furthermore, hospitals should align with the training needs of nurses, using diverse training methods to improve the relevance and effectiveness of training, laying a solid foundation for the improvement of TCM nursing standards in the Guangyuan area.

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Disclosure statement

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